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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/471,030	12/23/1999	MASANORI WAKAI	35.C14127	6923

5514 7590 04/06/2007
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NEW YORK, NY 10112

EXAMINER

SPOONER, LAMONT M

ART UNIT	PAPER NUMBER
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2626

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/471,030	Applicant(s) WAKAI ET AL.	
	Examiner Lamont M. Spooner	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-19,23,25-41 and 45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-19,23,25-41 and 45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 1/16/07 have been fully considered but they are not persuasive. More specifically, the Examiner cannot concur with applicant's arguments, "However, Namba is not seen to disclose or suggest generating a status concept instance that represents an acquired operation status of a program",

Namba teaches status acquisition means for acquiring an operation status of a program executed in said apparatus (C.8.1lines 2-26, see fig. 12-the processor determines the status of a program executed in said apparatus, wherein each process is performed in determined steps, see fig. 4, the operation status is interpreted as determined by the operation instruction function, as in the status of display on the apparatus, C.7.1lines 34-50-his operation status in display mode, C.15.1lines 40-47, see fig. 4, the operation status is determined by the operation instruction function, as in the status of display on the apparatus, C.7.1lines 34-50-his operation status in display mode)

In response to applicant's arguments with respect to the claim 1, 23 and 45, including newly added limitations... "In addition, Namba is not seen

to disclose or suggest generating an input concept instance from a sequence of at least two types of information sorted in input time order, by referring to a rule stored in a knowledge base, which stores a rule for defining information necessary for generating the input concept instance with respect to a type of input concept. Moreover, Namba is not seen to disclose or suggest unifying the status concept instance and the input concept instance", applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-19, 23, 25-41 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Namba et al (5,884,249) in view of Jackson et al (6,292,767 B1).

As per claim 1, Namba et al teach an information processing apparatus comprising (figures 1, 2, 9, 13 and 15):

status acquisition means for acquiring an operation status of a program executed in said apparatus (C.8.lines 2-26, see fig. 12-the processor determines the status of a program executed in said apparatus, wherein each process is performed in determined steps, see fig. 4, the operation status is interpreted as determined by the operation instruction function, as in the status of display on the apparatus, C.7.lines 34-50-his operation status in display mode, C.15.lines 40-47, see fig. 4, the operation status is determined by the operation instruction function, as in the status of display on the apparatus, C.7.lines 34-50-his operation status in display mode):

status concept instance generating means for generating a status concept instance that represents the operation status of the program acquired by said status acquisition (ibid, C.16.line 51-C.17.line 8-status concept instance as his information in his information/operational instruction table-see Fig. 4, "display" function);

a plurality of input means for inputting different types of information (his voice recognition section 1, his touch panel section 2, his keyboard section 3, col. 6, lines 50 to col. 7, line 1 5)-,

storage means for storing information input from each of said plurality of input means with an input time thereof (his recognition selecting section 4, *1. 2, lines 10-19, lines 24-32, his input time stamp recognition); and

sorting means for sorting at least two types of information (C.12.lines 62-67-voice, sound, music-the Examiner has interpreted voice, and applause as two different types of information-the extraction/division thereof is interpreted as the sorting thereof) stored in said storage means in an order of with the input time (time-stamped and concurrent signals, simultaneous input is interpreted as the time accordance of the sorting, the order being, C.14.lines 1-5, the respective divided (or extracted) information, the respectively indicating the order, based upon the input time (C.13.lines 54),

input concept instance generating (C.16.line 61-C.17.line 8, Fig. 3 input as "detail this", "this" as falling in a concept group of "@ proximal relationship") means for generating an input concept instance from a sequence (col. 7, lines 15-24, his recognition result selecting section 4 and his semantic analyzing section 5, col. 8, lines 38-46, lines 61- 67, col. 10, line 35-50, C.16.line 61-C.17.line 8-his input of "this" as an input concept instance as it relates to macro description "@ proximal relationship") of the

at least two types of information (C.13.lines 64, 65, C.14.lines 30-37-divided operation is interpreted the sorted/extracted information) sorted in the input time order (C.14.lines 17-55, ""this" indicates data around the coordinate (12, 23), based on the time "14(H): 25(M): 34 (S)" at which time the touch-panel was touched, and the estimated time stamp "14(H):25(M):33(S)" for "this""-Interpreted as the time order, and this information has been sorted in the input time order, -C.14.line 65-c.15.line 37-"this here"-sequence-which is sorted in an order accordance with the input time, c.15.lines 40-47-analysis) by said sorting means; and

concept instance unifying means for unifying the status concept instance and the input concept instance (C.16.line 61-C.17.line 8-his coincidence algorithm as the unifying means, see Fig 4-item 23).

Namba does not explicitly disclose a knowledge base for storing a rule for defining information necessary for generating an input concept instance with respect to a type of input concept, and referring to the rule in said knowledge base.

However, Jackson teaches these lacking limitations (C.3.lines 37-45, Fig. 2-his specification of application semantics). Therefore, at the time of the invention, it would have been obvious to one ordinarily skilled in the art

to modify Namba's input with Jackson's input semantic specification. The motivation providing the benefit of input concept/semantic definition and interpretation for further matching with an input sentence thus allowing input interpretation (interpreted as input concept instance generation), see C.3.lines 37-66.

As per claim 3, Namba lacks wherein the input concept instance includes a type of a slot and an instance corresponding to the slot of the type. However Jackson et al teach wherein the input concept instance includes a type of a slot and an instance corresponding to the slot of the type (col. 3, lines 4-22, his command type slot 340 with a value "transfer"). Therefore, one having ordinary skill in the art at the time the invention was made would have it obvious to incorporate into the input information analyzing unit of Namba et al the user specification as taught by Jackson et al because it would provide a development system that allow a developer to easily create natural language understanding systems.

As per claim 4, Jackson et al further comprising:

"a database for storing the input information and information necessary for generating the input concept instance, in one-to-one

correspondence"; (figure 4b, his user specification of applications semantics , col. 3, lines 37 to col., 4, line 20),. and

"retrieving means for retrieving information necessary for generating the concept instance corresponding to the input information, from said database, (col. 3, lines 45-57).,

wherein said input concept instance generating means generates the concept instance in accordance with the information retrieved from said database (col. 3, line 22 to col. 4, line 20).

As per claim 5, Jackson et al teach wherein said database stores a concept type, a rule necessary for the input concept instance, and a rule necessary for a surface layer word, respectively corresponding to a surface layer character string. (col. 3, lines 22 to col. 4, lines 20, his slot definition file 420, his grammar file 430 and his slot classes 440).

As per claim 6, Jackson et al teach wherein said concept instance unifying means unifies the concept instances in accordance with the rules (figures 4a and 4b, col. 3, line 22-57).

As per claim 7, Jackson et al teach wherein said database stores, as a definition of a concept, a slot type of a slot which the input concept instance can have, and a rule which is required to be satisfied by the

instance corresponding to the slot (figures 4a-4b, col. 3, lines 22-27, his slot definition file and his grammar file).

As per claims 8, Jackson et al teach wherein said unifying means unifies the concept instances in accordance with the rule designated by the definition of the concept corresponding to the type of the concept of the input concept instance (col. 3, lines 22 to col. 4, lines 20).

As per claim 9, Jackson teach wherein said concept instance unifying means selects an applicable request in accordance with requirements of a plurality of rules, applies the selected request and unifies the concept instances (col.3.lines 22 to col. 4. line 20)

As per claim 10, Namba and Jackson make obvious claim 1, and Namba further teaches wherein said status acquisition means acquires the operation status of said apparatus at an input time (Fig. 3-his "detail this" and input time, C.13.lines 2-13, Fig. 4 his display status as the operation status).

As per claim 11, Namba and Jackson make obvious claim 1, and Namba further teaches status storage means for storing a past status (C.8.lines 26-34-his storage area, and control information as status stored and read out, C.7.lines 55-67-his ...previously held instructions...) wherein

said status concept instance generating means generates the status concept in accordance with the past status read from said status storage means (ibid, Fig. 3-his instruction contents, detail and display concept-generated from the previously held instructions).

As per claim 12, Namba and Jackson make obvious claim 1, and Namba et al further teaches wherein said input means can input key information (figure 1, his inputting means group 121).

As per claims 13, 16 and 17, Namba and Jackson make obvious claims 1 and 12, and Namba et al teach wherein said input means can input character information by converting the key information (figure 1, his touch panel 2 and his keyboard 3).

As per claim 14, Namba and Jackson make obvious claim 1, and Namba et al teach wherein said input means can input speech information (His voice recognition 1)).

As per claim 15, Namba and Jackson make obvious claim 1, and Namba et al teach wherein said input means can input character information by recognizing the speech information and converting the speech information into character information (his inputting means group 121).

As per claims 18-19, Namba and Jackson make obvious claim 1, and Namba et al teach wherein said input means can input handwritten information (figure 15, a graphic recognition section 143 which recognizes hand-written or printed characters of figures at col. 27, lines 38-67).

4. Claims 23-41 and 45 are the same in scope and content as claims 1-19, above and therefore are rejected under the same rationale.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory

period for reply expire later than SIX MONTHS from the date of this final action.

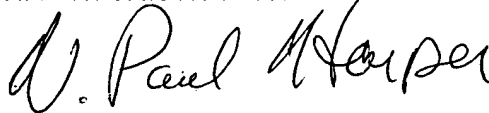
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamont M. Spooner whose telephone number is 571/272-7613. The examiner can normally be reached on 8:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571/272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

lms
3/28/07

V. PAUL HARPER
PRIMARY PATENT EXAMINER

A handwritten signature in black ink that reads "V. Paul Harper". The signature is written in a cursive style with a large, stylized "V" at the beginning.